Software May Eat the World, but You Still Need a Fork

innovation works®
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Manufacturing Program Associate – Innovation Works

- Manage Scalable Innovation Program
- Connect entrepreneurs to manufacturing resources
- Manage IAP & MIP Grants
Innovation Works

A nationally-recognized venture development organization focused on growing Southwestern Pennsylvania’s entrepreneurial economy through direct investment, business expertise, and hands-on support.
Decentralized Delivery Allows Regional Focus

Statewide Benjamin Franklin Technology Partners (BFTP) Impact in 2018

- 2,016 Jobs Created
- 11,595 Jobs Retained
- 2,041 Cos Assisted
- 155 New Companies

BFTP Statewide Locations
IW Provides Critical Resources to the Region’s Startup Community

475+ Cos
Funded since Oct. 1999

1,140 Cos
Companies have received business/financial assistance since 1999

#1 Ranked
Seed-stage investor nationally in 2018 by # of investments

$3.3 Billion
Annual revenue generated by IW alumni companies

$2.1 Billion
Total follow-on funding to IW companies since 1999

#6 Ranked
Accelerator program in the United States

70%+ of venture deals in the region are IW companies.
IW Provides Critical Resources at Key Stages of Company Growth

- Basic & Applied Research
- Pre-Seed
- Seed-Stage
- Early-Stage Venture Capital
- Expansion-Stage Venture Capital
- Late-Stage Private Equity

Universities, Federal R&D, SBIR, Friends & Family (F&F)

IW, F&F
IW & Angels

Riverfront Ventures, VCs, Angels, & Angel Funds

Riverfront Ventures, VCs, Strategic Corporate, & Angel Funds

Private Equity Firms & Debt Financing

Software May Eat the World, but You Still Need a Fork
What hardware used to be...
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VC.

Hardware Startup
The Hardware Revolution

In recent years, Silicon Valley seems to have forgotten about silicon.

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Building a Successful HW Company

1. Customer Validation

2. Product/Market Fit

3. Company & Team Building

4. Investor Buy In
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Smart Prototyping

Fake it until you make it
- “works-like” vs. “looks-like” vs. MVP

One hypothesis at a time

Ugly & Fast beats Beautiful & Slow
Successful Products Start Simple

- 1st iPhone - iPod with up/down/left/right buttons
- 1st Fitbit - single pedometer, not wireless, no subscription revenue
- 1st DropCam - overpriced IP camera that was easier to use and had better software
Crowdfunding Tips

- Key to success is before the launch
- Nail down 50%+ of total raise before launch
- Everyone wants to back a winner
- Your competitors are watching
Supply Chain Hacks

- Shop outside the box
- Ride high volume product coattails
- Alibaba & Other Online Matchmakers
- Never, ever be the guinea pig
Choosing a Manufacturing Partner

- New Factory or New Product – Not both
- Involve factory early – DFM
- Small production runs to start, increase slowly
- 1st Production Run….be there in person
Design for Manufacture in the U.S.

- Can be Lower Cost!
- Time to Market
- Inventory Carrying Costs
- Quality Control & IP Protection
Distribution Amplifies Every Choice

- Price high to start
- Do things that don’t scale...in the beginning
- Engineering: Software => Marketing: Hardware
PROFIT ≠ CASH
Regional Manufacturing Assets

- Over 8000 Manufacturers in the region
- Skilled Advanced Manufacturing Work Force
- Infrastructure to support new manufacturers
- Leading research universities and other technology institutions
Industry Diversity

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#1 City in World for HW

- Regional Support for Manufacturing
- Experience working with early stage products
- Local Skilled Workers

PITTSBURGHERS KNOW HOW TO MAKE STUFF
### What is an accelerator?

#### Philosophy
- Accelerate market learning through rapid iteration and testing early products with customers

#### Unique Model
- Focus on customer development intertwined with product design and development
- Mentorship, Education
- Community, Networking
- Funding
- Space

#### AlphaLab
- Founded Feb 2008 to build and accelerate Pittsburgh’s software/Internet ecosystem
- Leverage national and local trends
  - Decreasing cost to build software products
  - Agile development techniques
- Charter member of Global Accelerator Network
- #6 ranked accelerator nationally
The proven methodology of Agile Innovation applied to the specific needs of hardware startups

8-month program in our East Liberty workspace

Targeted mentorship and assistance with prototype development, engineering, user testing, design for manufacturing, supply chain management, and sales

Access to prototyping and manufacturing equipment and software
Office Space

Software May Eat the World, but You Still Need a Fork
Funding
Educational Sessions
Mentors & Advisors
Network, Community & Collaboration

Software May Eat the World, but You Still Need a Fork
Demo Day & Sneak Peak
Gear Results
For cycles 1 - 4

- 90%
  - Raised Follow on Funding

- 50%
  - Received Innovation Works Funding

- $15M+
  - Raised Post ALGear

- 100%
  - Paying Customers
What do accelerators look for?

- Able to have a fundable plan by program end
- Unique, compelling solution with strong market potential
- Capital efficiency - ability to achieve significant milestones in short period of time
- Passion, commitment and capabilities of the team